

AMENDMENTS TO THE SPECIFICATIONS

II. BACKGROUND OF THE INVENTION

1. Field of the Invention.

The present invention relates to a separator for fluids and solids, and more particularly, to a separator that does not use moving parts.

2. Other Related Applications.

The present application is a continuation-in-part of ~~pending~~
abandoned U.S. Patent Application Serial No. 09/865,994, filed on May 5,
2001, which is hereby incorporated by reference.

3. Description of the Related Art.

Many designs for treating gases have been designed in the past for the purpose of separating a particular gas from solids or liquids suspended in a physical mixture. The prior art devices use moving parts to avail themselves of the effect of centrifugal forces. Nor are the prior art devices suitable to be used in a continuous system. None of these designs have achieved the degree of success realized in the present invention with a relatively simple structure that is inexpensive to construct and maintain.

Applicant believes that the closest reference corresponds to U.S. patent No. 2,015,076 issued to Lavigne for a centrifugal separator. However, it differs from the present invention because Lavigne patented

1 invention does not include through openings cooperatively disposed at an
2 angle to facilitate the exit of the solids by defining an entrance adjacent to
3 the outermost wall portion of the conduit member.
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5 Applicant believes that another of the closest references correspond
6 to U.S. patent No. 4,278,550 issued to Watts for a fluid separator. However,
7 it differs from the present invention because Watts patented invention does
8 not include through openings cooperatively disposed at an angle to
9 facilitate the exit of liquid by defining an entrance adjacent to the conduit's
10 outermost wall portion. The present invention is characterized by having
11 openings at acute (downstream) angle with respect to the direction of flow
12 of the fluid inside the serpentine that facilitate the exit of solids and liquids,
13 respectively. In Watts the openings run at an acute (upstream) angle with
14 respect to the direction of flow of the fluid (figure 3). The most that the
15 particles can do in Watts is clog the entrance to the openings. Therefore,
16 Watts' device is inoperable to separate particles in a fluid. In the present
17 invention, the inwardly extending portion directs the particle towards the
18 opening.
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20 Another of the closest prior arts know to Applicant corresponds to
21 U.S. patent No. 5,567,321 issued on October 22, 1996 to Weber, Rohr and
22 Suter. The centrifugal filter discloses a rotatable traveling basket including
23 holes and a rather complicated mechanism. However, the patented
24 centrifugal filter uses moving parts and it would not work in a continuous
25 system. Also, it does not work for gases such as those present in exhaust
26 systems.
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